

REMARKS

I. Status Summary

Claims 1-15 are pending in the present application. Claims 1, 3, and 5 have been amended. Claims 2, 13, and 14 have been cancelled. Therefore, upon entry of this Amendment, Claims 1, 3-12, and 15 will be pending.

Claim 1 has been amended to include the features of cancelled Claims 2, 13, and 14.

II. Claim Rejection - 35 U.S.C. § 102

Claims 1-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,917,682 to Vanderbauwhede (hereinafter, "Vanderbauwhede"). This rejection is respectfully traversed.

Claim 1 recites a transceiver for a transmission and reception signal which can be transmitted via a signal line having a particular line impedance. Further, Claim 1 recites a line driver for driving a transmission signal via the signal line. Claim 1 has been amended to recite that the line driver has a synthesized output impedance. Further, Claim 1 has also been amended to recite a programmable analog echo cancellation filter for signal suppression for an echo signal brought about by the transmission signal. Claim 1 has been amended to recite a hybrid circuit for connecting the analog echo cancellation filter to the signal line. Further, Claim 1 has also been amended to recite a reception filter for filtering a signal received via the signal line. Claim 1 has been amended to recite a subtraction circuit which subtracts

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from the filtered output signal of the reception filter the transmission signal simulated by the echo cancellation filter to generate a reception signal liberated of the echo signal. Applicants respectfully submit that Vanderbauwhede fails to disclose each and every feature recited by amended Claim 1.

Vanderbauwhede discloses a device comprising a hybrid circuit that is integrated in the analog front end of a communication line **17**. (See Figures 1 and 2, of Vanderbauwhede). Further, Vanderbauwhede discloses that the hybrid circuit comprises tunable passive elements, the values of which are controllable. Vanderbauwhede also discloses that the hybrid circuit comprises a digital control means (e.g., a microprocessor) for controlling the tunable passive elements. (See column 1, lines 53-60, of Vanderbauwhede). The passive elements can be tuned by the control register of a microprocessor, which connects or disconnects small resistors or capacitors, in order to permit a discrete controlling of the resistance or capacitance values. (See column 3, lines 18-25, of Vanderbauwhede). The hybrid circuit is a differential impedance bridge. The best echo return loss is obtained when the bridge is in equilibrium, which is the case when the TX return loss gain is equal to zero. (See column 4, lines 15-22, of Vanderbauwhede). The hybrid TX return loss gain is calculated by the microprocessor, and the microprocessor tunes the tunable passive elements in the hybrid circuit, adapting them until a value of zero is obtained. Therefore, the tunable passive elements reach their optimal value through this adaptation. (See column 4, lines 58-67, of Vanderbauwhede).

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In contrast to the circuit taught by Vanderbauwhede, Claim 1 recites a line drive, an analog echo cancellation filter, a hybrid circuit, a reception filter, and a subtraction filter. The configuration of the transceiver recited by Claim 1 and its mode of operation are distinct from the teachings of Vanderbauwhede. In particular, the analog echo cancellation circuit recited by Claim 1 provides a signal corresponding to the transmission signal by suppressing the echo signal brought about by the transmission signal. The reception filter recited by Claim 1 provides a signal corresponding to the reception signal overlapped with the transmission signal. The subtraction circuit recited by Claim 1 subtracts from the filtered signal obtained by the reception filter, the transmission signal that is simulated by the echo cancellation filter. Thus, the subtraction circuit generates a reception signal that is liberated of the echo signal.

Vanderbauwhede fails to disclose a programmable echo cancellation filter that is connected to the signal line by a hybrid circuit, as recited by Claim 1. Further, Vanderbauwhede fails to disclose a reception filter for filtering a signal received via the signal line, or a subtraction circuit which subtracts from the filtered output signal of the reception filter, the transmission signal simulated by the echo cancellation filter, as required by Claim 1. Accordingly, Vanderbauwhede fails to disclose each and every feature recited by Claim 1. For these reasons, applicants respectfully submit that the rejection of Claim 1 under 35 U.S.C. § 102(e) should be withdrawn and the claim allowed at this time.

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Additionally, applicants respectfully submit that Vanderbauwhede and the other cited references, either alone or in combination, fail to disclose or suggest using a programmable analog cancellation filter connected to a signal line by a hybrid circuit in conjunction with a reception filter, as recited by Claim 1. Further, the cited references, either alone or in combination, do not disclose filtering a signal received via the signal and a subtraction circuit which subtracts from the digital output signal of the reception filter, the transmission signal simulated by the echo cancellation filter. For these reasons, applicants respectfully submit that Claim 1 should be allowed at this time.

Applicants note that a Great Britain patent (Great Britain Patent Application No. 2 392 360 A) has been granted on a set of claims including a claim that is substantially identical to Claim 1.

Claims 2, 13, and 14 have been cancelled. Accordingly, applicants respectfully submit that the rejection of Claims 2, 13, and 14 under 35 U.S.C. § 102(e) should be withdrawn.

Claims 3-12 and 15 depend upon Claim 1. Therefore, Claims 3-12 and 15 include the features recited by Claim 1. Accordingly, for the reasons set forth above with respect to Claim 1, applicants respectfully submit that the rejection of Claims 3-12 and 15 under 35 U.S.C. § 102(e) should be withdrawn and the claims allowed at this time.

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CONCLUSION

In light of the above Amendments and Remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

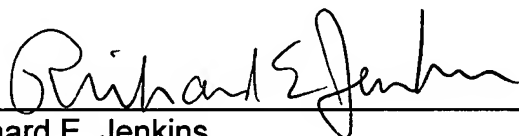
The Commissioner is hereby authorized to charge any additional fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

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REJ/BJO/sla

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